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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/658,380 | 09/10/2003 | Woo-Jong Lee | 277/ 021 | 3327 |

7590 08/04/2005
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Suite 2000
1101 Wilson Boulevard
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EXAMINER

SCHINDLER, DAVID M

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2862

DATE MAILED: 08/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action
Before the Filing of an Appeal Brief**

Application No.

10/658,380

Applicant(s)

LEE ET AL.

Examiner

David Schindler

Art Unit

2862

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 15 July 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____.

Claim(s) objected to: 10-12, 15 and 16.

Claim(s) rejected: 9, 13 and 14.

Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.

12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No.(s) _____.

13. ☐ Other: _____.


Bot Ledynh
Primary Examiner

Explanation of 7.: See Final Rejection with regard to objected to and rejected claims.

Continuation of 11. does NOT place the application in condition for allowance because:

Note: U.S. Patent Number 5,764,052 to Renger (herein referred to as "the Renger reference").

With regard to section C on page 2 of applicant's remarks, Examiner respectfully disagrees with applicant. 1) As to lines 1-2 of paragraph 4, the Renger reference does disclose a fluxgate. Please see lines 7-12 of the abstract, lines 32-34 of column 4, lines 22-63 of column 6, lines 54-67 of column 4, lines 1-10 of column 5, and Figures 1 and 2. Note the coil, the magnetic core, and that the segments 52-58 of core member 42 are saturated. 2) As to lines 2-4 of paragraph 4, the coil 40 in the Renger reference is both a drive and a sensing coil. Note that current passed through the coil generates a field that saturates the core, and the output of the coil is used to measure the magnetic field. See lines 54-59 of column 4, lines 22-36 of column 6, lines 5-15 of column 7, lines 7-12 of the abstract, and Figures 1 and 2. 3) As to lines 5-7 of paragraph 4, the Renger reference meets the claim limitations. First, the terminology used in the arguments is not found in the claim. The claim does not recited "an event." The claim recites in part "a pulse controller for generating a pulse to block current from flowing into a driving coil of a fluxgate when it is determined that conversion of an analog signal from the fluxgate to a digital signal is completed by an A/D converter and the A/D converter outputs the digital signal to the pulse controller." Column 7, Lines 12-30 of the Renger reference discloses that the microprocessor (pulse controller) reads the output of the A/D converter (Column 7, Lines 12-13) and that "Once Vout has been measured (using ... the A/D converter 48 ...), the microprocessor 32 switches the port POUT back to a low voltage level, turning off the transistor" (Column 7, Lines 22-25) Therefore, the Renger reference meets the claim limitations Please note Vout in Figure 1.

With regard to section D on page 3 of applicant's remarks, specifically paragraph 2, Examiner respectfully disagrees with applicant. Applicant argues, "any pulse control in the Renger reference does not stop outputting a control signal in accordance with the output of the A/D converter" (Paragraph 2, Lines 5-6). The Renger reference meets this limitation. In Column 6, Lines 7-11, the Renger reference states "...the microprocessor outputs a logic high value (at T0) to turn on the transistor 34. This causes the capacitor 38 to discharge through the transistor 34, inducing a current through ... the coil 40." In Column 7, Lines 22-26, the Renger reference states "Once Vout has been measured (using ... the A/D converter 48 ...), the microprocessor 32 switches the port POUT back to a low voltage level, turning off the transistor 34 and allowing the capacitor 38 to recharge (through the resistor 36)." Therefore, the Renger reference has two control signals (a logic high value and a low voltage level) and that once Vout has been measured using the A/D converter, the logic high value control signal is stopped and is no longer output, and a low voltage level is output instead.

Please note the phrase "the AND gate" on lines 2 and 3-4 of Claim 16 lacks antecedent basis.